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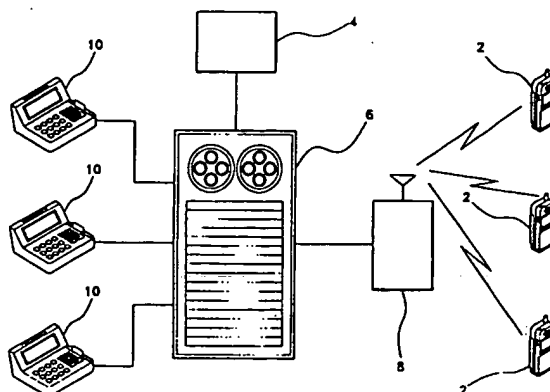
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(54) Title: COUPON SERVING SYSTEM USING WIRELESS COMMUNICATION TERMINALS



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(57) Abstract: The present invention relates to a coupon serving system using wireless communication terminals by using wireless communication terminal equipments which allows rapid serving of coupons based on the actual results of use by customers. There is provided a coupon serving system under the use of wireless communication terminals based on a coupon on which a discount amount or discount rate or commodities or services available free of charge are shown and which is to be given to a customer so that the customer may use when buying commodities or using services, which system comprises wireless communication terminal equipments (2) owned by customers, and a data transmission server (6), a data base (4) being built in the data transmission server (6) so as to enable the transmission of predetermined data to wireless communication terminal equipments (2) by wireless, the data base including the telephone numbers for the wireless communication terminal equipments (2) of customers, wherein the data transmission server (6) incorporates therein a coupon data transmission program for transmitting coupon data such as the discount amount or discount rate or the commodities or services available without charge to the wireless communication terminal equipments (2) of customers, so that the entitled customers may buy commodities or use services by using the coupon data received in their wireless communication terminal equipments (2) when the coupon data are transmitted to their terminal equipments.

Coupon serving system using wireless communication terminals

FIELD OF THE INVENTION

The present invention relates to a coupon serving system using wireless communication terminals and more particularly to a new conception coupon serving system by using wireless communication terminal equipments which allows rapid serving of coupons based on the actual results of use by customers.

In recent years, there is widely employed a customer managing service which is intended to increase the sales of member enterprises by giving predetermined coupons to the customers who used the stores or markets of the member enterprises to thereby induce them to visit the places again. The above described coupons on which the discount amount or rate or the commodities or services available free of charge are written mean the promise that the discount charge or rate or things without charge as indicated on the coupons can be realized when the customers buy commodities or use services. In this instance, the customer managing company usually dispenses the coupons to individual customers regularly by sending mails.

However, when a certain member enterprise holds a special event for instance, the delivery time to the wanting customers could be too long, because the customer managing service may send in many cases the coupons together with periodical mails. In addition, the cost spent with the mailing is also a problem. Specially, in such a custom managing service, while preferably coupons may be dispensed differentially depending on the amount of favorite use by the customers, sending differential coupons to the individual customers through mail has the problem of a considerable cost and time in practice.

On the other hand, a character transmission service which transmits character data required by a customer to the cellular phone of the customer by means of a data transmission system which is capable of transmitting data to cellular phones by wireless has been recently

developed. This data transmission system transmits character data, such as the information on weather or stock prices, sports news or E-mails to be received to the addresses of customers, as desired by the customers, to the cellular phones of customers by using a data transmission server in which character data to be sent to the customers have been already built. The customers using this type of service which is mostly provided free of charge is on the increase these days.

SUMMARY OF THE INVENTION

The present invention is intended to resolve the above described problem and the object of the invention is to provide a new conception coupon serving system by using wireless communication terminals which system can serve graded coupons rapidly and depending on the sum of purchase or use and which can reduce cost.

The above object is achieved according to the invention by a coupon serving system under the use of wireless communication terminals based on a coupon on which a discount amount or discount rate or commodities or services available free of charge are shown and which is to be given to a customer so that the customer may use when buying commodities or using services, which system comprises wireless communication terminal equipments 2 owned by customers, and a data transmission server 6, a data base 4 being built in the data transmission server 6 so as to enable the transmission of predetermined data to wireless communication terminal equipments 2 by wireless, the data base including the telephone numbers for the wireless communication terminal equipments 2 of customers, wherein the data transmission server 6 incorporates therein a coupon data transmission program for transmitting coupon data such as the discount amount or discount rate or the commodities or services available without charge to the wireless communication terminal equipments 2 of customers, so that the entitled customers may buy commodities or use services by using the coupon data received in their wireless communication terminal equipments 2 when the coupon data are transmitted to their terminal equipments.

The above object of the invention is also achieved by a coupon serving system under the use of wireless communication terminals,

wherein the results of use or purchase by customers are recorded in the data base 4 and the coupon data transmission program can transmit, to customers, the graded coupon data in accordance with results of use or purchase of the customers by comparing the results of use or purchase with the coupon service criteria input beforehand in the data transmitting server 6.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 shows the arrangement of the coupon serving system using wireless communication terminal equipments according to a preferred embodiment of the invention, and

Figure 2 shows the flowchart for the coupon serving system using wireless communication terminal equipments in Figure 1.

DETAILED DESCRIPTION OF THE INVENTION

The present invention will be described in detail below along a preferred embodiment with reference to the accompanying drawings.

Figures 1 and 2, which relate to a coupon serving system by using wireless communication terminals according to the invention, illustrate the system as applied to the customer managing service wherein coupons are provided to the customers who used the stores or markets of member enterprises after a number of member enterprises were recruited by a customer managing company.

The above described coupon serving system allows a customer to buy commodities or use services through the use of coupons received in his or her wireless communication terminal equipment 2 by transmitting to the terminal equipment 2 the data on coupons such as a discount amount or discount rate or the commodities or services available without any charge. The system consists of a wireless communication terminal equipments owned by customers and a data transmitting server 6 in which the data base including the telephone numbers for the cellular phones of customers is incorporated and which is capable of sending predetermined data to wireless communication terminal equipments by wireless.

As the above described wireless communication terminal

equipments 2, cellular phones, pager, PCSs, PDAs, IMT 2000 or any other equipments that can receive data via wireless may be used. The data transmitting server 6 may transmit data via a relay station 8 of a communication enterpriser who provides communicating service for wireless communication terminal equipments 2. The data base 4 includes the record of the results of use by all the customers, which results each correspond to the reserve which a customer has accumulated by inputting his or her settled payment through the terminal 10 connected to the data transmitting server 6 whenever the customer uses any store or market belonging to any of the member enterprises. In the data transmitting server 6, there is built a coupon data transmission program for transmitting coupon data to wireless communication terminal equipments 2. This coupon data transmission program functions to transmit coupon data based on the results of use by customers by comparing the results of use as recorded in the data base 4 with the preset coupon serving reference. This coupon serving reference utilizes that as determined by the customer managing company or one of the member enterprises and may vary as required. The coupon data constructed in the form of characters, pictures or a mixture of character and picture include the contents of coupon such as the discount charge, discount rate or the commodities or services available free as well as the unique numbers given to the respective coupon data.

The sequence of issuing coupons is illustrated in Figure 2. When the result of use which a customer produces as he or she uses stores or markets of a member enterprise exceeds a predetermined level in Step A and B. In the case coupon data transmission program finds that the result of use of the customer meets the criteria for issuing coupons as the result of comparison of the result of use of the customer with the coupon service criteria in Step C, it transmits corresponding coupon data to the wireless communication terminal 2 of the customer in Step D. Accordingly, after storing the coupon data received in his or her wireless communication terminal 2 in the memory of the terminal 2, the customer may use data by presenting them to an employee of a store or market following loading them as required. And the unique numbers of coupons once used are input in the above described data transmission server 6 to

prevent any further use.

The coupon serving system using wireless communication terminals 2 constructed as above can transmit coupons to the wireless communication terminals 2 instantly by using the coupon data transmission program. Accordingly, this system is not only characterized by its marked swiftness in comparison to the conventional method of sending coupons through mail but also by the saving in the cost for printing separate coupons and the reduction in the cost related with mail dispatch because of the use of the data transmitting system which is served without any charge. Further, another advantage of possibility to provide various kinds of coupons based on the results of use of customers can be obtained, because the coupon data transmission program takes the charge of transmitting graded coupons to customers based on the comparison of the result of use with the coupon service criteria.

This type of coupon serving system using wireless communication terminals may be useful specially when a special event is held in the interest of the superior customers.

Although the coupon serving system to be applied to the customer managing service through a customer managing company was explained in the present embodiment, such a system may be applied, for example, in the instance where an enterprise independently serves coupons to the customers who used a store or shop belonging to the enterprise. For another example, this embodiment which concerned awarding of coupons to the customers depending on the achieved result may also be applied to the case of coupon issuance wherein coupons are issued to all customers according to the predetermined coupon service criteria independent of actual results of use so that infinite use may be allowed within a predetermined period. In the last mentioned case, the coupon data include no unique identification numbers.

As described above, the present invention, by transmitting coupons to the wireless communication terminals of customers by means of a data transmitting server, can provide a new conception coupon serving system using wireless communication terminals, wherein graded coupons can be served to the customers rapidly and depending on the result of use or purchase by the customers.

CLAIMS

1. A coupon serving system under the use of wireless communication terminals based on a coupon on which a discount amount or discount rate or commodities or services available free of charge are shown and which is to be given to a customer so that the customer may use when buying commodities or using services, which system comprises wireless communication terminal equipments 2 owned by customers, and a data transmission server 6, a data base 4 being built in the data transmission server 6 so as to enable the transmission of predetermined data to wireless communication terminal equipments 2 by wireless, the data base including the telephone numbers for the wireless communication terminal equipments 2 of customers, wherein the data transmission server 6 incorporates therein a coupon data transmission program for transmitting coupon data such as the discount amount or discount rate or the commodities or services available without charge to the wireless communication terminal equipments 2 of customers, so that the entitled customers may buy commodities or use services by using the coupon data received in their wireless communication terminal equipments 2 when the coupon data are transmitted to their terminal equipments.

2. A coupon serving system under the use of wireless communication terminals of claim 1, wherein the results of use or purchase by customers are recorded in the data base 4 and the coupon data transmission program can transmit, to customers, the graded coupon data in accordance with results of use or purchase of the customers by comparing the results of use or purchase with the coupon service criteria input beforehand in the data transmitting server 6.

FIG. 1

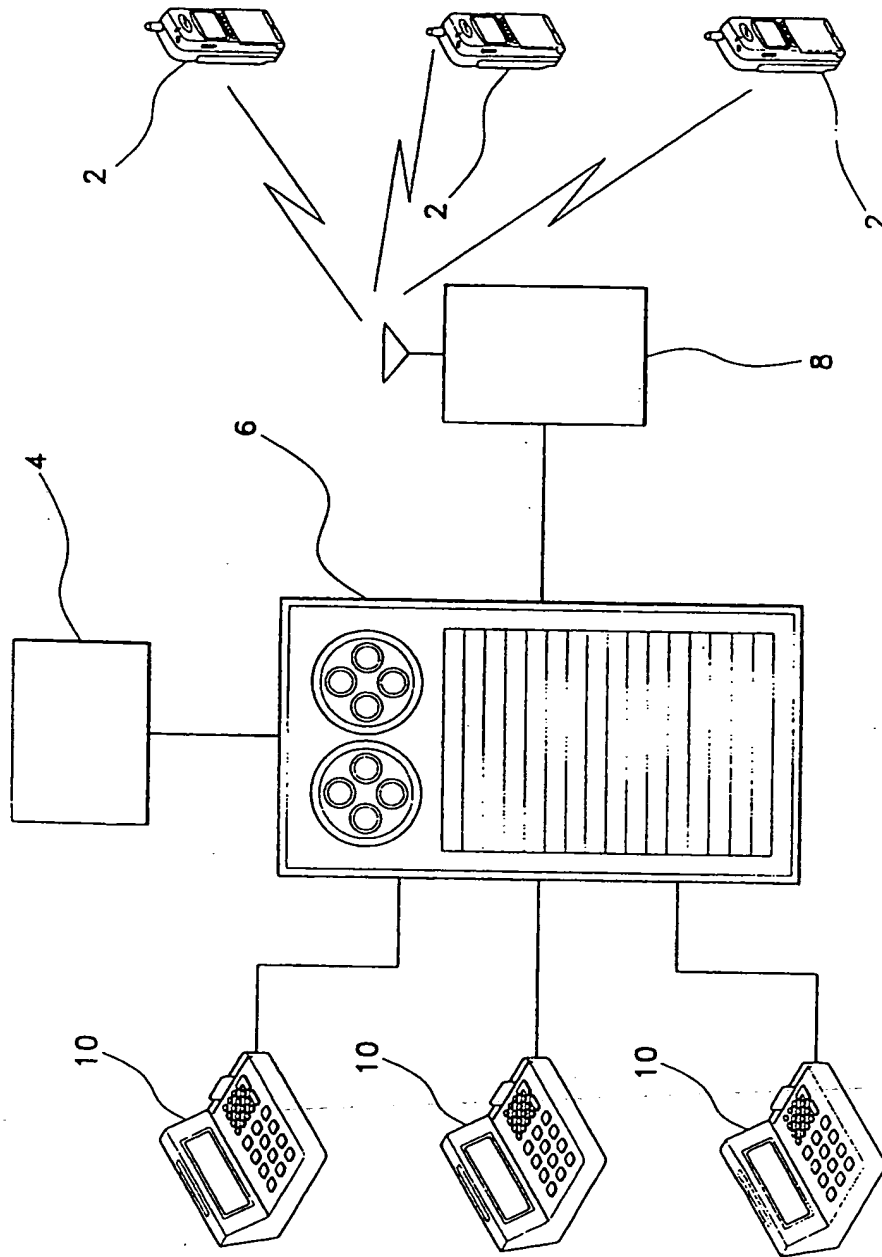
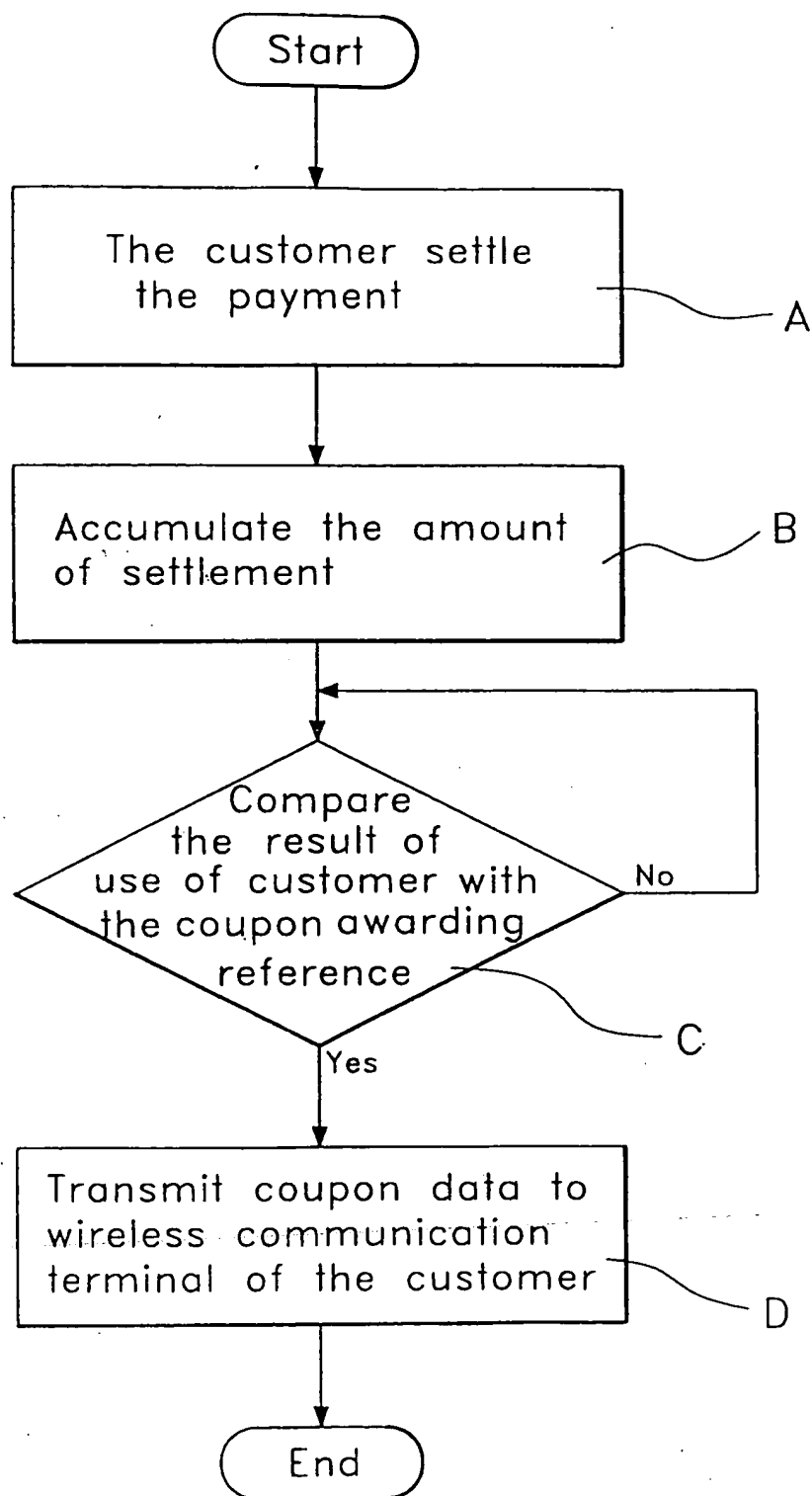


FIG. 2



INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR 00/00422

CLASSIFICATION OF SUBJECT MATTER

IPC⁷: G06F 17/60

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC⁷: G06F, G06K, H04H, H04M, H04N, H04Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPI PAJ EPODOC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5852775 A (Hidary) 22 December 1998 (22.12.98) fig. 1 and description.	1,2
X	US 5420606 A (Begum et al.) 30 May 1995 (30.05.95) fig. 1 and description.	1,2
X	EP 0713335 A2 (AT&T Corp.) 22 May 1996 (22.05.96) fig. 1 and description.	1,2
X	WO 99/30273 A1 (Walden) 17 June 1999 (17.06.99) fig. 1 and description.	1,2
X	WO 00/03328 A1 (Motorola Inc.) 20 January 2000 (20.01.00) page 1, line 19 - page 2, line 15.	1,2
X	EP 0964542 A2 (NuWorld Marketing) 15 December 1999 (15.12.99) fig. 1 and description.	1,2

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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„&“ document member of the same patent family

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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